

**CLAIMS**

1<sup>st</sup>.- Temperature sensor device that allows changes of temperature (14) to be detected, as the materials that form said device (1) are deformed, characterized in that it has a body formed by two valves (2) and a structure (8) provided in the interior hollow (7), so that they join together with the help of a number of bolts (5), it having been envisaged that in one of the bolts (5) and in the structure (8) electrical terminals (4) are positioned, separated a distance (12) from each other, so that when an increase in temperature (14) takes place, it causes the deformation of the components of the device (1), allowing contact of the electrical terminals on having reached the critical temperature (14), and producing the activation of a warning device (13) with the aid of a conductive medium (10)

2<sup>nd</sup>.- Temperature sensor device, according to claim 1, characterised in that in the interior face of the valves (2), a number of tiered cylindrical ledges (3) have been envisaged, preferably equidistant, that have a number of blind apertures (4).

3<sup>rd</sup>.- Temperature sensor device, according to previous claims, characterised in that the valves are of cylindrical section in their central area and of spherical section in the sides, having an outlet channel (6) in one of the ends.

4<sup>th</sup>.- Temperature sensor device, according to previous claims, characterized in that the bolts (5) are tightly introduced into the blind orifices (4) of the cylindrical ledges (3), allowing the valves (2) to be coupled.

5<sup>th</sup>.- Temperature sensor device, according to claims 1 and 4, characterized in that at least one of the bolts (5) has an electrical terminal (9), preferably metallic.

6<sup>th</sup>.- Temperature sensor device, according to claims 1 and 4, characterized in that the structure (8) has at least one bolt (5), this being integral with the structure (8) or detachable.

7<sup>th</sup>.- Temperature sensor device, according to claim 1, characterized in that the structure (8) has an electrical terminal (9).

5                   8<sup>th</sup>.- Temperature sensor device, according to previous claims, characterized in that the structure (8) is rectangular with circular section.

                  9<sup>th</sup>.- Temperature sensor device, according to previous claims, characterized in that the bolts (5) have cylindrical shape with the rounded  
10 ends.

                  10<sup>th</sup>.- Temperature sensor device, according to claim 1, characterized because the warning device (13) can be a buzzer, alarms, luminous signs or fire-extinguishers activators.  
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                  11<sup>th</sup>.- Temperature sensor device, according to claims 1, 5 and 7, characterized in that the distance (12) between the electrical terminals (9) is designed according to the coefficients of dilation or of deformation of the components that make up the device, as well as of the critical temperature  
20 (14) for giving the alarm signal.

                  12<sup>th</sup>.- Temperature sensor device, according to previous claims, characterized in that the components that form the device (1) must have same coefficients of dilation or of deformation, so that they react in the same way when being subjected to the same increase in temperature, (14) that is, that they undergo the same process of deformation when subjected to the same temperature change (14).  
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                  13<sup>th</sup>.- Temperature sensor device, according to the claim 12, characterized in that the components of the device (1) are plastic, being obtained from a single mould or moulding operation.  
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